

## REMARKS

### In the Specification

The specification was amended to include the names of the parties to the Joint Research Agreement, Sandia Corporation, Albuquerque, NM and EnviroFoam Technologies of Huntsville, AL (See Appendix A: Statement of Common Ownership), as required by 35 USC 103(c), as amended by the CREATE Act of 2004.

### Claim Status:

- Claims **1-38** are pending.
- Claims **12-16, 22-24, 32** and **36** are withdrawn from consideration as being restricted to a non-elected invention.
- Claims **1-11, 17-21, 25-31, 33-35, 37** and **38** are rejected.

### Claim Amendments

- Claims **2, 3, 6, 7, 9, 11, 17, 19, 20, 21, 26, 27, 30, 31, 33, 34, 37** and **38** are currently amended in this paper.
- Claims **25** and **28** are cancelled.

### Claim Rejections – 35 USC §112, First Paragraph

Claims **1-9, 17-21, 27-31** and **35** were rejected under 35 USC §112, First Paragraph as failing to comply with the written description requirement. According to the Office, the component "**a sorbent additive**" was never defined by applicant in the specification as originally filed. Furthermore, the Office asserted "*the function of using the sorbent additive to "dry out" one or more liquid components can not be said to be a universal function to all the [diverse] sorbent additives listed in applicant's claims 10, 25, 33 and 37.*"

Applicants respectfully **traverse**. The fact that the Office considers the list of examples to be a "diverse" set of substances is not sufficient grounds, alone, for concluding that the component "sorbent additive" is indefinite.

The following definitions from Merriam-Webster's Collegiate Dictionary (10<sup>th</sup> Ed.) apply herein:

**sorb**: to take up and hold [something] by either adsorption or absorption.

**sorbent**: a substance that sorbs [something].

**additive**: a substance added to another in relatively small amounts, to effect a desired change in properties.

Hence, a broad definition of a "**sorbent additive**" is: "a substance that is added to another in relatively small amounts, in order to effect a desired change in properties, which takes up and holds [something] by either adsorption or absorption."

The Specification and Abstract clearly and distinctly define what Applicants mean by the term "a sorbent additive." The specification teaches, at p. 51, lines 9-10, that a "highly adsorbent additive" is used to "dry out" one or more liquid ingredients of the formulation. Furthermore, the specification teaches, at p. 51, lines 11-15, that a goal of "drying out" the liquid bleaching activator(s) is to produce a dry, free-flowing powder. Also, at p. 51, lines 18-20, the specification teaches that the function of the sorbent additive is to "absorb and/or adsorb substantially all of the liquid activator to produce a powdered, free-flowing product that is easier to handle."

Note that the Specification at p. 58, lines 15-19, teaches that the sorbent additive may also be added to components other than a liquid bleaching activator (Part C), such as: the liquid foam component (Part A), or the liquid oxidizer component (Part B),

In particular, as it is used in the present application, the component a **sorbent additive** means: "a substance that is added to a liquid in a relatively small amount, that takes up and holds the liquid by either adsorption or absorption, thereby converting the liquid into a dry, free-flowing powder." As mentioned above, the "liquid" that is converted into a dry, free-flowing powder may be a liquid peroxide activator component, a liquid foam component, or a liquid oxidizer component, or combinations thereof.

Additionally, as it is used in the present invention, the phrases: "to dry out" and "drying out", means converting a liquid component into a dry, free-flowing powder.

Applicants submit that the list of examples on pages 52-53 and in claims 10, 25, 33 and 37, of suitable substances that may be used as a sorbent additive, all possess a common, **universal property**, i.e., the capability to absorb and/or adsorb a liquid in order to convert the liquid into a dry, free-flowing powder; as well as possessing a common, **universal function**, i.e., the function of converting a liquid into a dry, free-flowing powder.

Applicants submit that a person of ordinary skill in the chemical arts would readily understand and appreciate the conversion of a liquid component into a dry, free-flowing powder. Therefore, the "*metes and bounds*" of the scope of the function of "a sorbent additive" is well-known, well-defined, easily understood, and distinct.

Accordingly, the rejection of claims **1-9, 17-21, 27-31** and **35** under 35 USC §112, First Paragraph has been overcome and should be withdrawn.

#### Claim Rejections – 35 USC §112, Second Paragraph

Claims **1-9, 11, 17-21, 26-31, 34-35** and **38** were rejected under 35 USC §112, Second Paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding the meaning of the component "a sorbent additive", the Office is referred to the discussion presented above.

Claim **2** was rejected because of the use of a trademark, WITCO VARIQUAT MC™. In response, applicants amended claim **2** by replacing the trademark with the equivalent chemical description of the substance, a mixture of benzyl (C12-C16) alkyldimethylammonium chlorides. See Specification at p. 9, lines 21-23.

Claim **3** was rejected because of the use of a trademark, JAGUAR 8000™. In response, applicants amended claim **3** by deleting the trademark name, since the equivalent chemical description for JAGUAR 8000™ (Guar Gum 2-hydroxypropyl ether), was already listed in the claim as originally filed. See Specification at p. 13, lines 5-6.

Claim **19** was rejected because many of the listed species of "carbonate salt" are not carbonate salts, but rather bicarbonate salts, as pointed out correctly by the Office. In

response, applicants amended claim **19** (as well as claims **6**, **17**, **20** and **30** to be consistent) to refer to a “carbonate or bicarbonate salt”, since the Markush group contains both types of salts.

Claims **7**, **21**, and **28** were rejected as listing certain Markush member species twice. In response, applicants deleted the first recitations of “monoacetin (glycerol monoacetate)” and “diacetin (glycerol diacetate).”

Claims **11**, **26**, **34**, and **38** were rejected because the meaning of the abbreviation “HSH” was unknown to the Office. In response, applicants amended claims **11**, **26**, **34**, and **38** by replacing the acronym “HSH” with its full name, hydrogenated starch hydrolysates. See Specification, p. 53, line19.

Claims **20** and **31** were rejected because the phrase “*consisting substantially of*” was considered to be indefinite by the Office. In response, applicants amended claims **20** and **31** by replacing the phrase “consisting substantially of” with “consisting essentially of.” The meaning of the phrase “*consisting essentially of*” is well-defined and well-known in the patent art. Additionally, claims **20** and **31** were further amended by adding water to the claim elements.

Although claim **9** was not rejected by the Office, applicants amended claim **9** in a similar manner as above for claims **20** and **31** by replacing the phrase “consisting substantially of” with “consisting essentially of.”

#### Claim Rejections – 35 USC §103(a)

##### Claims 1-10, 17-21, 25, 27-31, 33, 35 and 37

The Office rejected claims **1-10**, **17-21**, **25**, **27-31**, **33**, **35** and **37** under 35 USC §103(a) as being unpatentable over Tadros et al. (6,566,574) or Tucker et al. (6,723,890) et al., both patents individually in view of Nakagawa et al (3,901,819).

Applicants submit that both *Tadros et al.* (6,566,574) and *Tucker et al.* (6,723,890) et al., should be **disqualified** as prior art under 35 USC 103(c) as amended by the CREATE act (P.L. 108-453) and, hence, cannot be used in a rejection under 35 USC §103(a). This is because the instant application (10/623,3705); patent no. 6,566,574 to

*Tadros et al.*; and patent no. 6,723,890 to Tucker et al. were all **commonly owned** by the same company, Sandia Corporation, at the time the present invention was made. See MPEP 706.02(I)(2).

The attached Statement of Common Ownership (Appendix A) provides the necessary supporting details.

Because the patents by *Tadros et al.* (6,566,574) and *Tucker et al.* (6,723,890) et al., are now disqualified from being using in a rejection under 35 USC 103(a); the rejections of claims **1-10, 17-21, 25, 27-31, 33, 35 and 37** are improper and should be withdrawn.

Claims 1-10, 17-21, 25, 27-31, 33, 35 and 37

The Office rejected claims **1-10, 17-21, 25, 27-31, 33, 35 and 37** under 35 USC §103(a) as being unpatentable over *Tadros et al.* WO 02/02192 in view of *Nakagawa et al.* (3,901,819).

Applicants submit that *Tadros et al.* WO 02/02192 should be **disqualified** as prior art under 35 USC 103(c) as amended by the CREATE act (P.L. 108-453) and, hence, cannot be used in a rejection under 35 USC §103(a). This is because the instant application (10/623,3705) and *Tadros et al.* WO 02/02192 were commonly owned by the same company, Sandia Corporation, at the time the present invention was made. See MPEP 706.02(I)(2).

The attached Statement of Common Ownership (Appendix A) provides the necessary supporting details.

Because *Tadros et al.* WO 02/02192 is now disqualified from being using in a rejection under 35 USC 103(a); the rejections of claims **1-10, 17-21, 25, 27-31, 33, 35 and 37** are improper and should be withdrawn.

Claims 11, 26, 34, and 38

The Office rejected claims **11, 26, 34, and 38** under 35 USC §103(a) as being unpatentable over *Tadros et al.* (6,566,574) or *Tucker et al.* (6,723,890) et al. or *Tadros et al.* WO 02/02192, all said patents individually in view of *Nakagawa et al.* (3,901,819) and further in view of *Huth et al.* (6,448,062).

Applicants submit that all three references: *Tadros et al.* (6,566,574); *Tucker et al.* (6,723,890) et al.; and *Tadros et al. WO 02/02192* should be **disqualified** as prior art under 35 USC 103(c) as amended by the CREATE act (P.L. 108-453) and, hence, cannot be used in a rejection under 35 USC §103(a). This is because the instant application (10/623,370); patent no. 6,566,574 to *Tadros et al.*; patent no. 6,723,890 to *Tucker et al.*; and patent application publication WO 02/02192 to *Tadros et al.* were **all commonly owned** by the same company, Sandia Corporation, at the time the present invention was made. See MPEP 706.02(I)(2).

The attached Statement of Common Ownership (Appendix A) provides the necessary supporting details.

Because the patents by *Tadros et al.* (6,566,574) ; *Tucker et al.* (6,723,890) et al., and *Tadros et al. WO 02/02192* are now disqualified from being using in a rejection under 35 USC 103(a); the rejections of claims **11, 26, 34, and 38** under 35 are improper and should be withdrawn.

#### Claim Rejections – 35 USC §102(b)

##### Claims 27, 29, 31, and 33

The Office rejected claims **27, 29, 31, and 33** under 35 USC §102(b) as being anticipated by *Kresanoski* (3,852,210). Applicants respectfully **traverse**.

Claim **27** recites, *inter alia*, a **sorbent additive** and a **water-soluble bleaching activator**.

**Nowhere** does *Kresanoski* teach the use of either a **sorbent additive** or a **water-soluble bleaching activator**. Although the example (example No. 1) identified by the Office in *Kresanoski* does contain a cationic surfactant (benzalkonium chloride) and a reactive compound (hydrogen peroxide); *Kresanoski's* example 1 does not contain a sorbent additive or a water-soluble bleaching activator.

Since **not all of the elements** of claims **27, 29, 31, and 33** are taught by *Kresanoski*, a *prima facie* case of anticipation cannot be supported. Hence, the rejections under 35 USC §102(b) is improper and should be withdrawn.

Claims 17, 20, 25, 27, 31 and 33

The Office rejected claims **17, 20, 25, 27, 31** and **33** under 35 USC §102(b) as being anticipated by *Hardy et al.* (4,853,143) or *Hardy et al.* (4,536,314).

In response, applicants amended claim **17** by limiting the sorbent additive to being selected from the group consisting of sodium citrate, dendritic salt, calcium hypochlorite, calcium chloride, polyols, urea, potassium bromide, and combinations thereof.

Nowhere does *Hardy* ('143) or *Hardy* ('314) teach the use of sodium citrate, dendritic salt, calcium hypochlorite, calcium chloride, polyols, urea, or potassium bromide as a sorbent additive.

Since **not all of the elements** of amended claim **17** are taught by *Hardy* ('143) or *Hardy* ('314), a *prima facie* case of anticipation cannot be supported. Hence, the rejection under 35 USC §102(b) is improper and should be withdrawn. Accordingly, claim **17** is now in condition for allowance.

Claim **20** depends from claim **17**. Since claim **17** is now in condition for allowance, it follows that dependent claim **20** is also now in condition for allowance.

Claim **25** was cancelled.

Applicants amended claim **27** by limiting the water-soluble beaching activator to being selected from the group consisting of acetylcholine chloride, 4-cyanobenzoic acid, ethylene glycol diacetate, propylene glycol monomethyl ether acetate, methyl acetate, dimethyl glutarate, diethylene glycol monoethyl ether acetate, glycerol diacetate (Diacetin), glycerol monoacetate, glycerol triacetate, and propylene glycol diacetate, and combinations thereof.

Nowhere does *Hardy* ('143) or *Hardy* ('314) teach any of compounds for use as a water-soluble beaching activator.

Since **not all of the elements** of amended claim **27** are taught by *Hardy* ('143) or *Hardy* ('314), a *prima facie* case of anticipation cannot be supported. Hence, the rejection under 35 USC §102(b) is improper and should be withdrawn. Accordingly, claim **27** is now in condition for allowance.

Claims **31** and **33** depend from claim **27**. Since claim **27** is now in condition for allowance, it follows that dependent claims **31** and **33** are also now in condition for allowance.

Claims 18-19 and 29-30

The Office rejected claims 18-19 and 29-30 under 35 USC §103(a) as being unpatentable over *Hardy et al.* (4,853,143).

Claims 18 and 19 depend from claim 17. Since claim 17 is now in condition for allowance, it follows that dependent claims 18 and 19 are also now in condition for allowance.

Claims 29 and 30 depend from claim 27. Since claim 27 is now in condition for allowance, it follows that dependent claims 29 and 30 are also now in condition for allowance.

**Double Patenting Rejections**

The Office rejected claims 1-10, 17-21, 26, 27-31, 33-35, 37, and 38 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the following patents or patent applications:

6,566,574 Tadros et al.

6,723,890 Tucker et al.

10/251,569 Tucker, filed 9/20/02, SD-7209

10/623,370 Tucker et al. filed 7/18/03, SD-7250 (this app.)

10/740,317 Tucker, filed 12/18/03, SD-7385

10/850,802 Tucker et al. filed 5/21/04, SD-7458

10/765,678 Tucker, filed 1/27/2004, SD-7463

**Terminal Disclaimer** statements have been attached for the above pair of commonly owned issued patents (See Appendix B), and for the above four commonly owned co-pending patent applications (See Appendix C). All of these patents and co-pending patent applications are commonly owned by Sandia Corporation.

Filing of these Terminal Disclaimer statements overcomes the rejections of claims 1-10, 17-21, 26, 27-31, 33-35, 37, and 38 under the judicially created doctrine of obviousness-type double patenting.

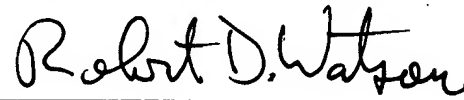


## CONCLUSION

Applicants have responded to each and every objection and rejection, and urge that claims **1-11, 17-21, 26, 27, 29-31, 33-35, 37 and 38** as presented and amended are now in condition for allowance. Applicants request expeditious processing to issuance.

The Office is authorized to charge **Deposit Account # 19-0131** for any necessary fees regarding this response.

Respectfully submitted,



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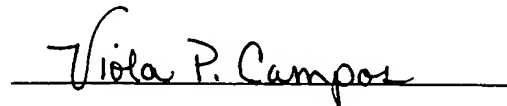
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### Certificate of Mailing under 37 CFR 1.10

I hereby certify that this correspondence was mailed to the U.S. Patent and Trademark Office, Mail Stop Amendment, P.O. Box 1450, Alexandria, Virginia on

November 2, 2005 (date).

  
Viola P. Campos

## **Appendix A**

### **Statement of Common Ownership under 35 U.S.C. 103(c)**

### **Statement of Common Ownership under 35 U.S.C. 103(c)**

As required to invoke the safe harbor provisions of 35 U.S.C. 103(c), as amended by the CREATE Act of 2004, the following Statement is provided.

A Cooperative Research and Development Agreement (CRADA) under the Stevenson-Wydler Act 15 (U.S.C. 3710) was signed June 21, 2001 between Sandia Corporation of Albuquerque, NM and EnviroFoam Technologies, Inc. of Huntsville, AL (hereinafter referred to as EFT, Inc.). This CRADA agreement qualifies as a Joint Research Agreement, as defined by 35 U.S.C. 103(c)(3). The original length of this Joint Research Agreement was 24 months, i.e., to June 21, 2003, but it was later extended by an additional 30 months until 12/21/2005.

During the period of time that this Joint Research/CRADA Agreement was in effect (i.e., from 6/21/2001 to 12/21/2005), the present invention was made by joint co-inventors Mark D. Tucker and Robert H. Tucker as a result of activities undertaken within the scope of the joint research agreement. At the time the invention was made, Dr. Tucker was an employee of Sandia Corporation; and Mr. Comstock was an employee of EFT, Inc. Hence, the claimed invention was made on behalf of the two parties (Sandia and EFT) to the Joint Research Agreement, which was in effect (6/21/2001) before the date the claimed invention was made (the provisional application 60/397,424 was filed 07/19/2002, and the invention disclosure was submitted to Sandia Corporation on 07/18/2002). The instant patent application has been amended to disclose the names of the two parties (Sandia and EFT, Inc.) to the joint research agreement.

The disqualified subject matter, patent 6,566,574 to Tadros et al., and patent 6,723,890 to Tucker et al., were both made on behalf of Sandia Corporation, and were both owned by Sandia Corporation when the present invention was made. All of the co-inventors (Maher E. Tadros of Albuquerque, NM; Mark D. Tucker of Albuquerque, NM; and Rita G. Betty of Rio Rancho, NM were (and currently are) employees of Sandia

Corporation, and all of them had (have) obligations to assign their inventions to Sandia Corporation.

Accordingly, the instant application and the two disqualified prior art patents (6,566,574 to Tadros et al., and 6,723,890 to Tucker et al.) should be treated as if they are commonly owned for the purposes of examination under 35 U.S.C. 103 (c) (1).

The Office is authorized to charge **Deposit Account # 19-0131** for any necessary fees regarding the submission of this Statement.

Respectfully submitted,

Robert D. Watson, 11/01/2005

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## **Appendix B**

### **Terminal Disclaimer to Obviate a Double Patenting Rejection over a pair of "Prior" Patents**

## **Appendix C**

**Terminal Disclaimer to Obviate a Provisional Double Patenting  
Rejection over 4 Pending “Reference” Applications,**

**and**

**List of 4 Pending Reference Application Numbers and Filing Dates**

**List of Commonly Owned, Co-Pending Patent Applications\* referred  
to in the Terminal Disclaimer to Obviate a Provisional Double  
Patenting Rejection over a Pending "Reference" Application,  
Form PTO/SB/25 (09-04)**

<u>Pending Reference Application Number</u>	<u>Filed On</u>
10/251,569	09/20/2002
10/740,317	12/18/2003
10/850,802	05/21/2004
10/765,678	01/27/2004

\*Commonly owned by Sandia Corporation